EESD06H3: Climate Change Impact Assessment

Instructor Information:

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Office hours: Thursday 9:30 to 12:30 pm (January 26 to April 20)

Appointments can be made by e-mail on any day except Friday

Course Webpage is on the Blackboard:

- PowerPoint presentations
- Announcements

Course Description:

Climate change over the last 150 years is reviewed by examining the climate record using both direct measurements and proxy data. Projection of future climate is reviewed using the results of sophisticated climate modeling. The climate change impact assessment formalism is introduced and applied to several examples. Students will acquire practical experience in climate change impact assessment through case studies.

Skills:

You have to have skill in the general use of computers and spreadsheet use. You need this to assemble and transform various data files. Basic mathematical skills are required: simple arithmetic, algebraic notation, order of operations, to note a few. You will learn the practical skill of analyzing climate data and its application to Climate Change Impact Assessments. You will also develop the thinking skill of using Climate Change information to CCIA.

Attitudes:

First, active participation in reading, asking questions and exploring topic material. Secondly, the independence to develop your own writing style, and present your own original work. Thirdly, an air of skeptical assessment such that if good results are obtained, you say so, but you also show an awareness of the limitations.

Lecture Topics (tentative)

- Jan 13 – Introduction, Climate Science I - Mohsin
- Jan 20 – Climate Science II - Mohsin
- Jan 27 – Climate Modelling and CCIA formalism - Mohsin
- Feb 3 – Canadian Climate Change Scenarios Network (CCCSN) - Mohsin
- Feb 10 – IPCC Process – M. Mirza

- Feb 17 – Downscaling Techniques – Mohsin
- Feb 24 – Reading Week
- Mar 3 – Midterm
- Mar 10 – Statistical Downscaling – Mohsin
- Mar 17 – CCIA Examples – Mohsin
- Mar 24 – Applied Climatology – Mohsin
- Mar 31 – Debates
- April 7 – Debates

Tutorials:

Time and place to be announced

Evaluation:

Assignments (3)	30%
Participation	10%
Midterm	25%
Debate	35%

Midterm (2 hours) will occur in class on MARCH 3.
Detail of the debates will be discussed in class.

Text Book:

Although no text book has been assigned to this course, the following readings are recommended, which will be helpful to understand the course materials.